

KARELIA UNIVERSITY OF APPLIED SCIENCES
Degree Programme in International Business

Heidi Hänninen

**DIGITAL SERVICE IN GLOBAL B2B COMPANIES: ECOMMERCE IN
AN INDUSTRIAL COMPANY**

Thesis
January 2017

**THESIS****January 2017****Degree Programme in International Business**

Karjalankatu 3

80200 JOENSUU

FINLAND

Tel. 358-13-260 6800

Author

Heidi Hänninen

Title

Digital Service in Global B2B Companies: eCommerce in an Industrial Company

Commissioned by Case Company

Improvements in technology and digitization have paved the way for digitalization of the whole economy. In a world steadily approaching a mobile economy, digital operations have a significant role. Customer expectations of swiftness and ease have placed high pressure on companies. In addition, competition has grown more demanding along with the new possibilities of e-business. Nevertheless, the use of online operations and online business models in B2B markets is rather diminutive.

The thesis addresses the effect of eCommerce on small and medium sized global companies operating in B2B markets. Also, the changes and challenges of incorporating digital means to the customer service process are explored. The study is commissioned by a global, medium-sized industrial company. The case company has six manufacturing units worldwide, two factories in Finland, and more than 20 years of experience in global operations.

Due to the changing business environment, the case company founded an online store in 2015. The online store started as a project, but the utility of it had not been properly assessed after being taken into use. Thus, the research of eCommerce's usability in B2B was necessary.

Through qualitative research methods, interviews, observations and benchmarking, the potential of eCommerce in B2B was found to be evident. eCommerce improves the company's cost-efficiency by automated steps in the buying process. For the customers, the idea of moving to a new purchase channel needs to be introduced through additional value, e.g. offering lower prices online. Among other matters, the case company should translate the online store to other languages and conduct a survey of customers' perceptions of the online store in order to engage customers into the new business model and serve them better.

Language

English

Pages 29

Appendices 1

Pages of Appendices 1

Keywords

Digitalization, eCommerce, self-service, customer service, B2B, online store

CONTENTS

1	INTRODUCTION	5
1.1	Background	5
1.2	Case company	5
1.3	Aim of the study	6
1.4	Methodology	6
1.5	Outline of the report	7
2	DIGITALIZATION – ONLINE OPERATIONS IN B2B	8
2.1	Digitalization of the society	8
2.2	Development of eCommerce	9
2.3	eCommerce and digitalization in B2B	11
3	CASE STUDY	15
3.1	Background	15
3.2	Traditional customer service	16
3.3	Customer service after establishment of the online store	19
3.4	Challenges and solutions of digital service model	21
4	RECOMMENDATIONS TO DEVELOPMENT OF DIGITAL SERVICE IN THE CASE COMPANY	25
5	SUMMARY	27
	REFERENCES	29

APPENDICES

Appendix 1 Semi-structured interview outline

1 INTRODUCTION

1.1 Background

Globalization and digitalization are often discussed as megatrends, world shaping phenomena. Both of the phenomena have strongly enhanced one another's effects during the last two decades. As a result, we are living in a digital economy in close cooperation with other countries globally.

In this economy, customer expectations are higher than ever, and competition between companies is more demanding. In B2C market digitalization's effects and achievements are already commonplace, whereas in B2B market companies are just learning. Moreover, companies are trying to find their ways to succeed in today's environment filled with self-service, electronic commerce (eCommerce) and automation.

The study is commissioned by a global medium-sized company operating in the industrial field. The company has recognized an urgency for change in their business operations and customer service practices due to the changing business environment in B2B market.

1.2 Case company

The case company is the parent company of a group that consists of six subsidiaries worldwide and two business units in Finland. The biggest production plant is located in Finland and it employs approximately 130 people. The main customer service of the group operates from the biggest production plant.

The strategy of the company is to accelerate growth in China, penetrate new applications by enhancing customer-oriented product development, and protect and grow the company's stronghold customers by providing the highest quality customer service.

The case company had a turnover of 80.2 million euros in 2015, 47.7 million of which came from industrial applications. Of the sales, 63.1 million originated from Europe. The

main market segments that the case company supplies are telecommunications, the machine industry, the electrical industry and the transportation industry.

1.3 Aim of the study

The aim of this study is to analyze the effects of digitalization on B2B market and B2B companies' customer service. Digitalization includes countless dimensions, but this study concentrates only on those relevant to the case company. Hence mainly eCommerce is explored.

The thesis aims to gain knowledge to the three following questions:

- What are the effects of digitalization, more specifically eCommerce, on small and medium sized global B2B companies?
- How does the B2B customer service process change along with the introduction of eCommerce?
- What are the challenges of incorporating digital means into the customer service process?

Based on the information gathered, suggestions for development of eCommerce operations in the case company are perceived.

1.4 Methodology

The study is in most parts carried out as a qualitative study, in which observation, interviews and benchmarking are used to collect primary information. All material and information regarding the case company are provided by its personnel.

The theoretical part has been brought together by utilizing secondary data collected from books and articles about eCommerce, B2B market changes and digitalization. Based on empirical research, theory and the writer's experience, suggestions for operating in a new digital environment for the case company are provided. Qualitative methods enable getting sufficient, in-depth answers and experiences of people relevant to the thesis subject.

Methods used in the study have been chosen to best provide answers to the three questions presented.

1.5 Outline of the report

The first part of the report concentrates on the history of digitalization and development and use of eCommerce. The development of eCommerce in B2B is studied through its history in B2C markets. Furthermore, digitalization's effects on B2B markets and companies are discussed. New digital solutions and models are assessed, and the potential of eCommerce is evaluated.

The second part concentrates on the case study. With the help of qualitative research methods, the present buying/ordering process is introduced from both customer and company perspectives. Finally, the same buying/ordering process by digital means is examined. The benefits and challenges found in online operations are closely explored, and solutions of another industrial company, Company X, introduced.

The last two chapters conclude the effects, use, possibilities and challenges of eCommerce. The author's recommendations for further actions regarding the development of eCommerce in the case company are offered. Finally, a summary of the overall impact of digitalization and the requirements of digital service for B2B companies is presented.

2 DIGITALIZATION – ONLINE OPERATIONS IN B2B

2.1 Digitalization of the society

Digitalization is a megatrend that showed its first signs already more than two decades ago. In the first wave came the internet, leading to a digital economy and now, the society is steadily approaching a mobile economy. Little by little the world started to adopt the idea of digitizing, transforming information such as text and pictures into digital form (Gartner Inc. 2016). While digitizing was enabled by improved technology, these two, digitizing and improved technology combined, created the premises for digitalization (Ilmarinen & Koskela 2015, 22-23).

Figure 1 summarizes the widespread effects of digitalization in different parts of the economy. In Finland, the first signs of digitalization appeared in 1996 when the first company websites were established and the first online publication of Helsingin Sanomat was published (Ruokonen 2016, 25).

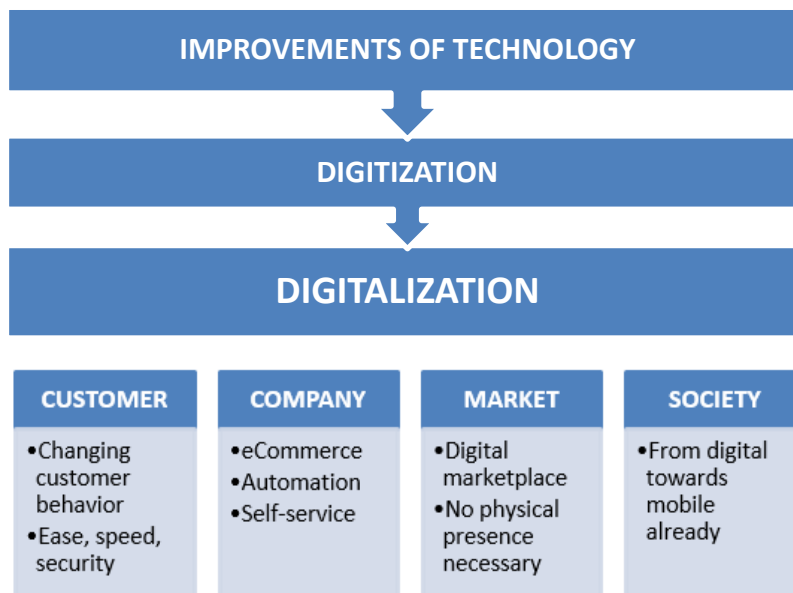


Figure 1. Digitalization's materials and changes it has initiated.

The following chapters will discuss the history and development of eCommerce in more detail. The future of eCommerce in B2B will be described through examples of development in the B2C industry, which was the first to experience the changes.

2.2 Development of eCommerce

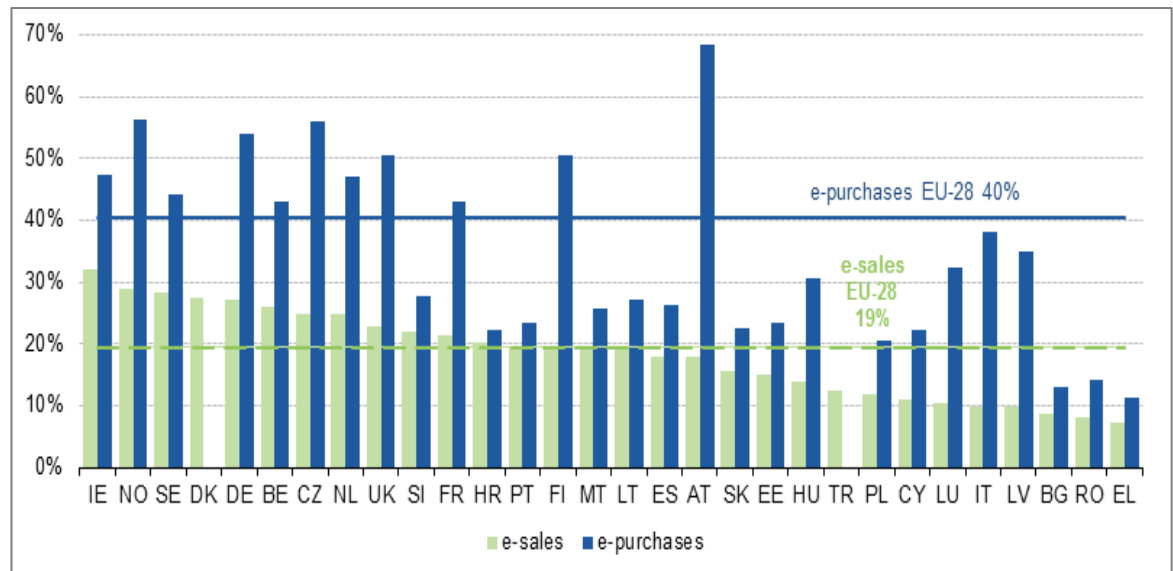
eCommerce means buying or selling products or services via the internet in exchange for money. It can be a business model or a part of it that allows doing business on the internet. The first signs of eCommerce were seen more than 40 years ago when Electronic Data Interchange (EDI) was introduced by British inventor and entrepreneur Michael Aldrich. EDI enabled documents to swiftly change owner without human intervention, thereby paving the way to eCommerce by bringing computer-to-computer communication into play. Communication between trading partners became easier and quicker at once. The greatest benefit was to businesses that could now send invoices, orders and other documents to one another's computers. (Miva 2011.)

Following EDI, in 1982 France came up with an early version of the internet called Minitel. Minitel connected millions of people through telephone lines, for the first time also including consumers. EDI only served businesses. As a predecessor of the internet, Minitel enabled some online payments and travel reservations but was later shut down due to success of the internet. The establishment of the internet dates back to 1990 when Tim Berners-Lee and Robert Cailliau started a project called the WorldWideWeb. In the same year, the first internet browser and server were generated. With the project rapidly progressing, soon also HTML, URL and HTTP were created. (Miva 2011.)

The inventions of Berners-Lee and Cailliau enhanced the growth of the internet. At the same time the National Science Foundation (NSF) increased online shopping by lifting restrictions on the commercial use of the internet. Moreover, encryption certificate provided by Netscape in 1994 guaranteed safe means for transmitting data online and reduced safety concerns related to the use of online operations. A year later, today's successors in eCommerce Amazon, eBay and Yahoo were founded. Four years from that, in 1998, Google and credit card payments online offering PayPal started their operations. (Miva 2011.)

Coming into the 21st century, eCommerce has kept on growing. In 2013, global B2C eCommerce sales were worth 1,233 billion dollars showing an increase of some 200 billion from 2012 (Statista 2014a). In 2014, already 40 percent of businesses had made purchases online. Still, only 19 percent had been selling online. In Graph 1, these figures

have been broken into more detailed, country specific numbers. Electronic sales are described with green bars on the left side and electronic purchases with blue bars on the right side. In most countries this blue bar representing electronic purchases is the bigger share of eCommerce activities.



Graph 1. Percentage of enterprises doing online sales and online purchases in 2014 by countries (Source: Eurostat 2015).

The total turnover of 2014's online sales in the EU amounted to 17 percent of total turnover of EU enterprises. The utilization of online sales correlates to company size: 43 percent of large enterprises made online sales, whereas only 17 percent of small enterprises engaged in eCommerce. In the category of large enterprises the online sales were worth 24 percent of total sales. (Statista 2015.)

Nowadays, eCommerce offers various solutions for conducting business. The biggest changes in comparison to traditional operating models are: there is no essential need for a physical store, and employees and even stock may be unnecessary. Examples of companies following the aforementioned principles in their service models are Amazon and Alibaba. The two companies either offer their online platform, warehousing and customer service for companies to use or operate only as a middleman, a retailer in between the seller and a buyer without any physical possessions. Moreover, both Amazon and Alibaba offer the possibility for consumers to sell to other consumers (C2C), thus enabling C2C eCommerce. (Ala-Mutka 2016.)

The use of the internet has increased from 1.8 billion users in 2009 to 3.2 billion users in 2015. In six years the number of internet users almost doubled, showing an increase in eCommerce use and online shopping. Regionally there are differences in internet penetration. At the moment, Europe is leading with 79.1 percent of individuals using the internet. One high potential market lies in Asia, where 41.9 percent of the population use the internet. The extensive size of the population in Asia makes the percentage of users, 1.79 billion, amounting to almost half of the total users of internet globally. (Statista 2016.)

eCommerce has numerous possibilities to evolve under today's constantly increasing number of users. In Finland, 78.6 percent of 16 to 64 years old people had purchased something online during the past three months in 2015 when the survey was conducted. Online banking and email were most common uses for the internet, with 80 percent of Finns having used them. The most recent estimation, during the time of the research, of eCommerce's value is from May 2016, when eCommerce News estimated online sales to reach 509.9 billion euros in Europe alone, showing an increase of 12 percent compared to last year. Furthermore, online sales are expected to build up to 2.4 trillion dollars in two years, by 2018. (Statista 2014b; Statistics Finland 2015.)

eCommerce and digital operations are not limited to conducting business. In addition to businesses, organizations have reacted to change caused by digitalization; schools have IT –classes and digital equipment for teaching, universities and other educational facilities educate IT –professionals, and doctors can soon give diagnoses via online connection. Users of eCommerce increase in number, and industries where eCommerce can be utilized grow wider. As stated in Miva's article (2011): "The growing use of the Internet, tablet devices, and smart phones coupled with larger consumer confidence will see that eCommerce will continue to evolve and expand."

2.3 eCommerce and digitalization in B2B

The value and potential of online operations in the B2B market was noticed early. In the 1970s when EDI was first introduced, it enabled businesses to communicate with one another's computers, thus giving the most benefit to B2B companies. After EDI, rather

unexpectedly, most of the development phases of eCommerce to come were first introduced to the B2C market. Not too far along after Amazon and others took consumers into electronic business (eBusiness), B2C industry saw quick progress.

Like any business, successful eCommerce derives from knowing customer needs and expectations. To learn about customers, companies are now able to collect a tremendous amount of user data. In the B2C market as well as in the B2B market, the amount of data available has increased notably over the last ten years as has the value of it. While more personal and behavioral information is available, more personalized solutions, products, marketing and services can be offered online. Production processes can be optimized by predictions based on the data of previous purchases. New innovations can be found through user experiences, buying behavior and feedback. (Ilmarinen & Koskela 2015, 169-170.)

In B2B, changed customer behavior initially set the digitalization and utilization of eCommerce into motion. Customers emphasize the importance of speed and ease of use, and demand for more personalized service. They also require the recognition of loyalty and value greater self-reliance. Self-service is available 24/7 and offers most of the aforementioned features that customers have come to appreciate. Nonetheless, same values have always been pursued in customer service: easiness, effectiveness and quality. (Insurance Governance Leadership Network 2015.)

High customer expectations regarding digital service originate from the fact that buyers of B2B businesses are also buyers in B2C. The buyers know to demand the same level of digital operations and service in B2B that they already have experience with in a B2C market. B2B buyers start to represent the younger generation, which is familiar with digital operations. From a customer point of view self-service can be an improved service, and from a business point of view improved efficiency. (Ilmarinen & Koskela 2015, 73; 55; Elinkeinoelämän tutkimuslaitos 2015.)

In the beginning, digital operations were only to support physical operations. At the moment, there are companies operating in both online markets and physical markets, using one to support another. But operating only online has become a noteworthy option for conducting business and just lately eCommerce has started growing in its popularity among B2B businesses. The estimation of the B2B eCommerce market value in 2020 is

6.7 trillion dollars, double the worth of B2C market (Sarwant 2014). The potential of online operations is obvious. In 2015 online sales in Europe were worth 455 billion euros (Ecommerce News 2016). (Ruokonen 2016, 25; 29.)

As a result of digitalization, strategic possibilities for companies have increased and barriers to international sales have been lowered. The European Union (EU) has placed decrees favoring global eCommerce encouraging companies to globalize their operations (Ilmarinen & Koskela 2015, 27). Yet in the B2B market, digitalization has not been notably exploited until recently. In 2013, only one out of ten Finnish industrial companies operating in a B2B market was using eCommerce as their business model (Lahtinen 2013, 25).

The European Union has recognized the importance of digitalization and has started to plan a Digital Single Market (DSM) that would unite 28 national market areas into one digital market. The purpose is to lower the barriers of international trade and encourage more small and mediums size enterprises (SME) to sell cross-border. A Digital Single Market would enhance growth as well as competition, encouraging businesses to innovate. Services and capital could move freely, and legal differences between countries should be extracted. Digitalization offers tools for companies to easier globalization and vice versa; globalization has helped digitalization by enabling businesses to reach customers worldwide (Ilmarinen & Koskela 2015, 69). All premises for digital success are built. (European Commission 2015.)

Although digitalization and eCommerce have been considered mostly positive phenomenon, threats have also been recognized. Threats include pricing volatility, lower revenue, an increasing number of competitors, distribution problems and cybercrime (Insurance Governance Leadership Network 2015). Reliance on technology is worrying many, as is the security of delicate company information. One of the biggest threats is a cyber-attack, which could result in a company's confidential information winding up in the wrong hands.

It is up to companies to weigh the opportunities and threats. Standing still is not a desirable option. Moving too fast is risky, and without digitalization it is impossible to keep pace with competitors. Altogether, digitalization has brought many challenges; customer expectations have built up, the number of competitors has increased through international

operations, price competition is tighter, and all the time newer technology is being developed. Digitalization is a phenomenon, a tool for change, a challenge and most importantly an opportunity that can be managed with innovation that standing out in the competition requires.

In the future, the goals of digitalization and eCommerce are expected to change. The main goal has commonly been to reduce costs through automation. However, customer experience is going to be perceived as more important, and the present service models are going to turn to digital engagement models. Traditional segmentation has been based on market size or location. Through digitalization no physical appearance is needed and a market is not limited to country borders. A company needs to assess its current market segmentation again. On one hand, cultural differences and behavioral patterns vary and challenge companies. On the other hand cultural differences may ease due to operations moving online. The question that comes within international eCommerce is whether the company should try to offer personalized service for each or standardize the offering instead. (PwC 2016.)

Digital development and digitalization has been said to have an impact worldwide. The situation varies greatly depending on the country. In the US, B2B eCommerce was worth 780 billion dollars in 2015 and is expected to grow significantly over the following years (Forrester 2015). According to Rissanen (2015), Finland has been stated to be one of the most advanced countries in using digital services and one of the leading countries in public electronic services. Therefore, considering the case company, prerequisites for success in digitalization seem to be good. The digital economy is still used to describe the economy of the present, but soon there is just the economy – the “digital” will be encompassed in the original word.

3 CASE STUDY

The market segments supplied by the case company are telecommunication, the machine industry, the electrical industry and transportation. The product range is wide and products highly customizable. The case company's main customer service operates from Finland. The online store, which was established in 2015, is at the moment available in English and in Finnish. Three of the company's warehouses are integrated into the online store. In the following chapters the effect of the online store on the customer service process will be viewed through a comparison to traditional buying process.

The following process descriptions are based on interviews in the case company and the author's experience gained during a five-month internship in the company. The names of the case company as well as Company X are withheld for privacy preservation. All interviews were conducted face-to-face. The semi-structured outline of Company X's interview can be found in Appendix 1.

3.1 Background

Global experience has taught the case company to closely observe domestic and global changes in the market –digitalization being a recent one. In late 2014, merely improving production technology in order to increase efficiency was considered not to be enough. Market changes and new strategic opportunities brought by digitalization required different reactions and new approaches. For studying the effects of digitalization and eCommerce to B2B companies' operations and job descriptions, the case company applied for support from TEKES. TEKES is a Finnish organization financially supporting Finnish companies in projects related to internationalization and digitalization. (Customer service manager 2016; TEKES.)

Of no difference to traditional operating fundamentals, digitalization enables meeting customers where they are, which is now online. This is why the traditional business operations of the case company needed to be updated by moving towards operating cross-channel or omni-channel. Operating cross-channel means that more than one channel for sales is being used, e.g. an online store and a brick-and-mortar store. The two channels

are in most cases to support each another: some customers prefer personal service and the physical feel of products, whereas some enjoy online platforms and self-service. (Customer service manager 2016; Ilmarinen & Koskela 2015, 109.)

Operating cross-channel also means that customers are intentionally being guided from one channel to another (Ilmarinen, Koskela 2015, 109-111). In general, B2B companies using these two channels, traditional and digital, can improve their efficiency by directing small customers into using an online store. In the case company, this was sought. The reason why the smaller customers were wanted to online store was to allow for more for attention to the bigger customers.

3.2 Traditional customer service

Figure 2 describes a customer journey. A customer journey is a visual description of a customer's experience with a company. The most important phases in a customer journey are presented as touchpoints – a touchpoint being the point of interaction between a company and a customer. Moreover, in Figure 2 the journey has been divided into two; a journey with digital touchpoints and a journey with physical touchpoints. Traditional touchpoints are presented below whereas digital touchpoints are presented above. (Service Design Tools 2009.)

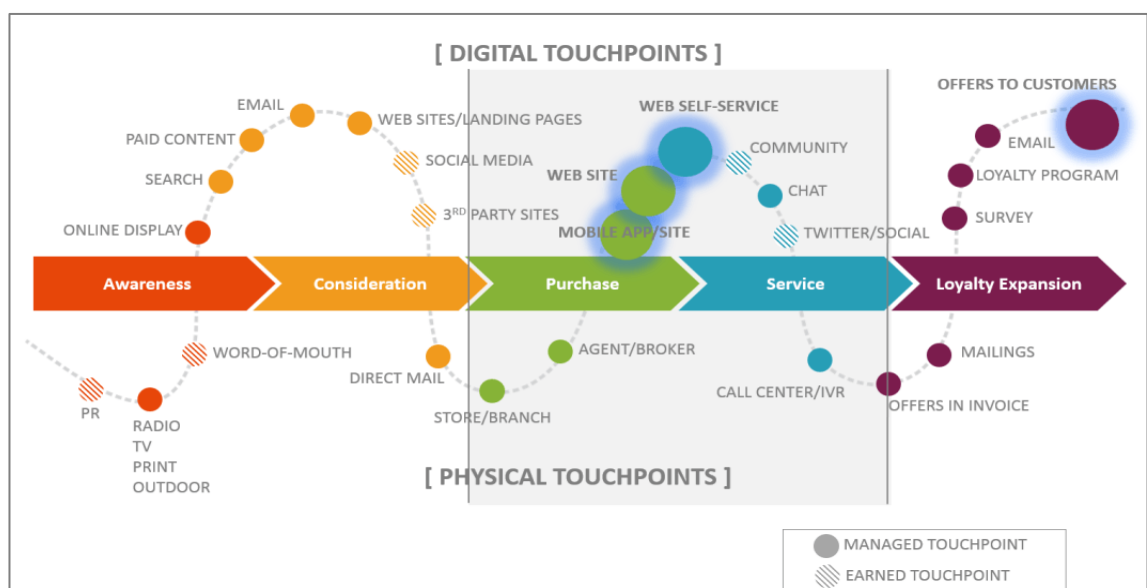


Figure 2. Customer journey with digital and physical touchpoints (Source: eComGrowth 2016).

Physical touchpoints represent places, channels and people on a customer's journey with the company. Touchpoints in the first two phases of the customer journey, awareness and consideration, mostly refer to different marketing means. Advertisements on radio and TV, printed brochures or presence at exhibitions have been the traditional touchpoints. With the help of digital means no printed brochures are needed anymore. Content on the internet is rather more essential. These touchpoints are crucial as the ones awakening a customer's interest and possibly initiating a purchase.

In the consideration phase, a customer assesses the information gathered so far and may reach out to the company for more information. Contacts have often been phone calls and emails. But now, the internet and online stores offer more channels to use such as chat, contact forms and social media channels. Chat has been expected to be the most important channel in the future due to its quickness and the real-time responding it enables. Searching for information, user experiences and prices is an easy and quick way for a customer to speed up decision making. Therefore, companies might want to consider the relevance and attractiveness of the content available on the internet. (Customer Service and Sales Assistant 2016.)

After the awareness and consideration phases the customer enters the purchasing channel chosen. Managed touchpoints on the grey background of Figure 2 relate to the buying process, also called the order process. In Figure 3, this particular process has been broken down into more specific steps. These steps concentrate on the main phases in the customer buying process. The figure presents a visualization of the traditional buying process and the same process concentrating on a company's operations (Back office operations in Figure 3).

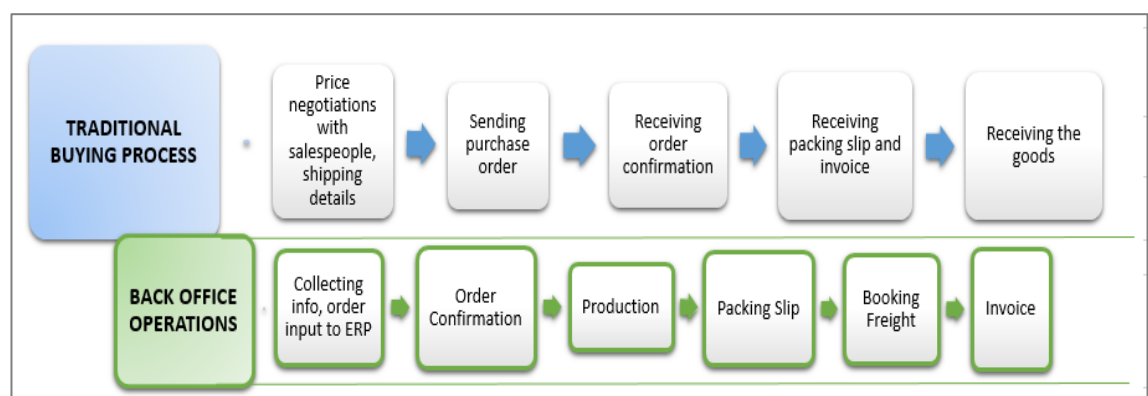


Figure 3. Traditional buying process and back office operations.

The traditional buying process can be described with five main phases. The customer initiates the buying process when negotiating prices and delivery terms with salespeople. In customer service, the process starts after those negotiations from receiving a purchase order. Purchase orders have usually been sent via fax, phone and email, email being the most commonly used channel. Customer service receives the order and gathers the essential information such as the pricing agreements the customer has made with company salespeople. After all necessary information has been collected, the order is put to Enterprise Resource Planning System (ERP). From ERP, the production is able to see the order and production planners are able to confirm the dispatch date according to production capacity and customer wishes. When production has confirmed the order, the order confirmation is sent to customer, ordinarily via email.

Provided that the production has agreed to customer's wishes regarding the dispatch date, the customer will wait for the packing slip to be sent when the goods are ready to leave the factory. If the confirmed dispatch date does not please the customer, additional messages between the customer, customer service and production are sent. When the goods are ready, the warehouse sends the packing slip to customer service. The packing slip will be sent in order to inform the customer of what size of a shipment to expect. Then, depending on the agreement, customer service either books the freight or makes sure that the goods are collected. The same day the goods leave production premises, an invoice will be sent to the customer. If everything goes well, the customer receives the goods and orders again in the future.

Described above is the traditional buying process in its simplest form. From the customer point of view the most time consuming phases are the negotiations before sending the purchase order and possibly the time waiting for order confirmation or response to an enquiry. Limited resources in customer service can cause bottlenecks, and answering to enquiries may then take a while. From the company point of view, the most time consuming phases in service appear at the beginning and at the end of the process. In the beginning, order input requires much effort due to highly customizable product range. Other time consuming tasks are making bookings to several different systems and handling customer communication such as document and information exchange.

3.3 Customer service after establishment of the online store

A commonly desired outcome of establishing another channel, in this case an online store, is to improve cost-efficiency. In the traditional buying process the resources can easily be listed, the most notable being time. With an automatized process or at least parts of it, resources from phases traditionally needed can be freed and allocated elsewhere, volumes controlled better and quality supervised more closely. In addition, processes become faster, which replies to a customer's increasing demand for swiftness. (Ilmarinen & Koskela 126.)

The benefits of an online store can be looked at from two different perspectives: from the customer perspective and from the company perspective. Customer behavior varies but for those favoring self-service, swiftness and service, an available 24/7 online store offers it all. Prices of the products and shipping are visible and comparable without separate negotiations or enquiries. Regarding delivery, delivery time is given before even confirming the order, and all necessary papers are sent automatically.

From the company point of view, an online store eases the back office operations remarkably (See Figure 4). Instead of manual order input, an online store allows the customer to make the order himself. Information collection is not needed because the customer himself fills up the information in registration phase. In this way customer is responsible for the information being correct and correctly filled in.

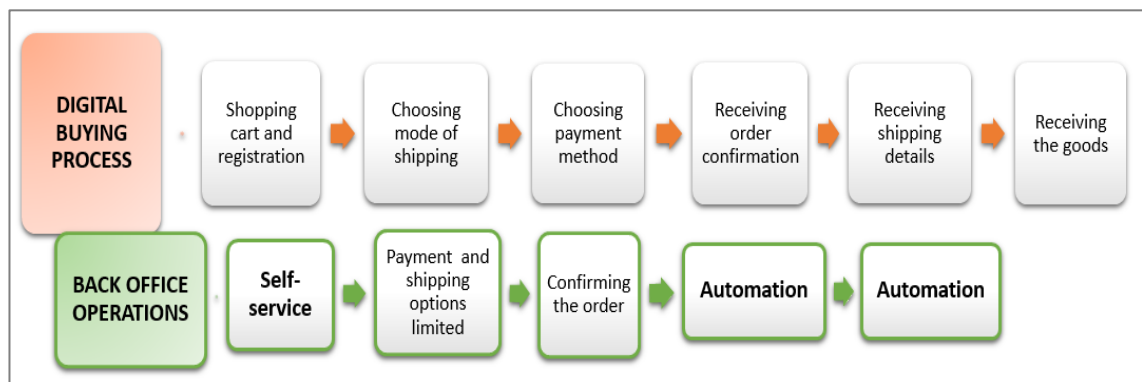


Figure 4. Role of back office operations in digital buying process.

Shipping and payment options are negotiated with selected companies already before taking an online store into use. Hence, payment and shipping phases require no action from customer service during the customer buying process. Confirmation is automatically sent

to the customer's email or/and account after customer service has confirmed the order from the managing side of the store. Shipping documents and details are also automatically sent from the shipping company chosen by the customer.

Digitalization is to replace processes in companies, making traditional business models questioned (Ruokonen 2016, 10). For the case company, an online store opens the possibility to move from a strict B2B –sales model to selling to consumers, too. At its best an online store gives the possibility to optimize stock and widen the product range through a wider customer base and diversified customer preferences. Furthermore, the customer base of a company can be increased and customers served more globally. Additional enquiries regarding prices, products or anything else are still received and answered but due to the automation of most processes, there is more time in customer service to handle those. All in all, the core concept of digitalization is in the question of what can a company move to a customer, whether it is responsibilities or a part of the Order-to-Delivery (OTD) –process. (Ilmarinen & Koskela 2015, 69.)

The case company's structure of customers shows that 80 percent of the company's sales come from about 20 percent of the customers. This refers to the 80/20 rule that has been found applicable to the revenue stream of most companies and lately, it has been considered applicable to efficiency in other areas, too (Koch 2016). Following the contemporary traditional model of the company, every customer gets the same amount of attention during the buying process, regardless the purchasing volume or the size of the company. This does not correspond to the aspired situation, but as the Customer Service Manager (2016) mentioned in the interview, the aim is to move smaller customers to an online store and give bigger customers more attention.

While some may find online store processes difficult, others are intrigued by the simplified process online stores offer. The whole purchasing chain benefits when paper work is significantly reduced by electronic documents. In online stores with very detailed products, such as in the case company, the buyer company's engineer can go to an online store, put all components needed into a shopping cart from where the buyer can then check, evaluate and confirm the order. The aforementioned is exactly what is meant by an online store bringing additional value to the customer. Cutting the decision making process and thus saving money from the buying organization is something to use when introducing the idea of using the online store to a customer.

All in all, a company has three options regarding how to use digitalization: to enhance business, to establish a new business or business model, or to boost the value of the products. Commonly, digitalization has been considered as an additional benefit accompanying present strategy rather than a starting point. This has given start-up companies a head start in the race towards success in digital markets. Start-ups can start their operations in a digital environment without the need to update and transform old operations into new ones. Digitalization is not only managing information within the company but more so delivering added value with that information. (Ruokonen 2016, 11.)

3.4 Challenges and solutions of digital service model

As an online store brings many opportunities and benefits, the integration of online operations to a company's business model is likely to bring challenges with it, too. With online business being new in industrial companies and quite recent in B2B, it is not easy to convince a whole organization to put effort and time into learning new operations. Attitudes towards digitalization may seem somewhat negative being based on suspicions of changing something that works. Tax and regulatory concerns and organizing responsibilities may cause additional uncertainty.

Operating an online store is not effortless, although the impression based on eased up service may seem so. Building an online platform suitable for the purposes of one company's needs is a long process. Operations although automatized need to be supervised and content taken care of. Adding products to an online store, creating marketing messages and updating prices are tasks that come along with online operations. Technical difficulties that are likely to appear in the beginning will soon be replaced by improvement ideas. The process of the online store becoming complete is endless.

In B2B companies' customer service, although most parts in the OTD-process have been automatized, businesses still need attention. In the beginning additional work comes from adjusting already existing customer companies into using an online platform. Earning their trust in the new process may take time since not all buyers are familiar with online operations. Expectations set by thriving eCommerce in B2C industry are high, and new online stores are not given too many chances to try.

During the research, an interview with another industrial company operating an online store was conducted. Company X is also a medium size company operating globally in the industrial field. The turnover of Company X was 7.6 million euros in 2015. The company manufactures custom parts for tools by utilizing 3D –printing and configurators in its online store. The Sales Manager of Company X, shared his experiences in an interview on the 3rd of November. The topic was taking online business into an industrial company's business model.

Company X's products are also very detailed and customizable, and the customer base is very demanding. As many others, Company X was also pursuing improved cost-efficiency when deciding to open an online store in 2003. Being the forerunners of eCommerce in the industrial side of the B2B market, Company X had also experienced resistance from customers after introducing the online process. Its solution was to lure customers into self-service by lowering the prices notably.

Although lowering prices worked for most customers, there were customers that refused to go online. For them traditional service was still made available. However, that traditional service was now sold as an additional service, meaning that the company charged money for the service. The traditional service was often required in specific cases, where the knowledge of Company X's was truly appreciated and professionals of the industry required. No matter the price for the service was now higher, for those companies using it the service was necessary and for Company X most profitable.

When moving operations online, the risk of losing customers exists. Making customers not only willing to move to the online store but to feel that they actually benefit from it can be difficult. While trying to find out what was the reason behind companies' reluctance of going online, Company X found out that most common reasons were buyer's lack of knowledge and their uncertainty. In 2006, Company X built an online configurator to help customers order the product needed. The configurator would calculate all the components needed based on only a few basic figures given by the customer thus making the buyer's purchase easier.

A company needs to find places where the customer goes to find information and then give the information right there and then. It can be product information online for the

buyer or samples sent to engineers designing the products. As Company X's Sales Manager explained, the buyers may not be familiar with products they need to buy. This is why content is considered important. Information should be available, easily accessible and in one place. By giving correct, sufficiently in-depth information a buyer is more likely to access an online store again in the future. (Cohn 2015.)

In B2B purchases prices have notable impact on the purchase decision. Contrary to B2C, where the prices are fixed and products standard, in B2B prices vary, volumes are higher and product ranges wider. Online stores have set price competition at a whole new level. While before there were price catalogs given to only those chosen, now the prices are online out in the open for everyone, competitor or buyer.

In addition to prices being available for everyone, so are product information and pictures. As the representative of Company X suspected: "With very little effort one can find production methods, materials and the appearance of the product and start manufacturing himself. The risk of becoming copied strikingly increases."

As in traditional business, store pricing remains one of the biggest concerns for online stores. If the prices are available for all, they should be attractive enough yet not too low. Company X solved the problem by using discount coupons: the bigger the customer and purchase volume the bigger the discount. Online enables another option, which is to choose whom to show the prices. Most online platforms offer options to restrict the visibility of certain sections e.g. products and to fix prices to individuals or customer groups. One solution could be giving different prices to registered customers and applying customers' already existing pricing agreements and price catalogs online too.

Similarly to prices also products can be fixed for individuals registered at an online store. This means that products with customer specific details can be shown to only chosen customers. Those customers who do not want their product details shown to the public or have secluded patents can still be served through online store. The only downside is that fixing products for each customer separately is quite time consuming.

Standardization is a crucial factor in online stores. The more standardization can be executed, the easier it is to succeed online. For industrial companies with very customizable and detailed products, choosing products to sell online may be tricky. The case company's

customer base is very diverse, making standardization often challenging. According to Sales Manager of Company X, without standardization it is impossible to operate in the long term. Cost reductions achieved in the digital process will be overcome by the customer specific production. Producing many specific and different products in comparison to more standardized, simple products is costly.

Through standardization comes the possibility to keep stock, which again positively affects delivery times. At the moment most products of both the case company and Company X are sold directly from warehouses. A minimum amount of stock is held, which keeps the costs manageable but requires close follow up. Customer demand for ease and speedy online operations puts high pressure to companies. As the Sales Manager of Company X described: “To be able to answer to the demand, it is almost impossible to operate without keeping stock.”

For the case company, opening an online store meant taking consumers into play for the first time. When technical problems after the launch had been mostly tackled, the case company realized the approach had been wrong. The customers of the online store had not been considered different from one another, although in the online store there were now also end consumers. These two groups require different kinds of treatment due to different expectations. For a consumer the product range of the case company tells most likely nothing, which is why content, information and pictures are appreciated. By giving a buyer a look at a product a purchase is a lot more likely to happen. (Customer service and Sales assistant 2016.)

Challenges in online operations vary between companies. The customer base, history and industry of a company impact the adaptation of the new business model. The new trend of mCommerce (mobile commerce) is quickly developing and increasing in popularity. In 2013, mobile sales revenues were already worth 38 billion dollars (Statista 2014). Lacking behind in development of eCommerce brings a lot of pressure to future success in mCommerce.

4 RECOMMENDATIONS TO DEVELOPMENT OF DIGITAL SERVICE IN THE CASE COMPANY

As learned from Company X's experience, an online store improves cost-efficiency in a company and frees resources from everyday responsibilities in customer service. Those resources can then be allocated to for example enhancing the customer experience online or growing medium size customers into bigger ones by paying more attention to them. Cost-efficiency through resources saved in the buying process was described in detail in Chapter 3.2.

Obstacles on the way to success in eCommerce can be tackled. Firstly, the case company should find out the reason for customer companies' reluctance to replace the traditional buying process with an online process. For this purpose, a survey should be conducted. The survey would allow receiving an insight of customers' perspectives. Additionally, it would be of help in finding solutions that would please both the company itself as well as its customers.

Secondly and most importantly, customers have to see a benefit in changing into new practices. Thus, one option is that the case company would consider lowering the prices in order to deliver additional value to the customers. In the beginning, lower prices can be enough to make customers enter the online store. Later on, after having used the online store a couple of times for purchasing, customers are likely to notice other benefits such as time saved in the new process.

Most challenging for the case company is going to be standardization because the whole product portfolio of the company is impossible to be brought online. Due to wide and varying customer range, choosing the right products to sell online may be difficult. Thus clear target groups should be searched and defined among new customers. The clearer the target, the easier it is to find the right products to suit the target groups chosen. However, the standardization of service is not an option, whereas for the products it is necessary.

An awareness of the online store needs to be increased among already existing customers as well as potential new customers. Emphasizing easiness, quickness and variability of the digital buying process could encourage buyers to try the alternative. Marketing emails

and campaigns could encourage customer companies to visit the online store and at the same time create more awareness of the online store.

In order to achieve the aspired cost reductions and other benefits from automation of processes, technological capabilities of employees need to be increased. The whole organization needs to be educated of the values and strategy of the online store. No difference to normal hiring or training process, the core of the online business needs to be acknowledged too. More specific training regarding the new digital process, including new digital systems and operating principles, needs to be carried out. To succeed in eCommerce, commitment of the whole organization is required.

There are still a lot of possibilities that the case company could utilize. For future growth, translating the online store to other languages would increase the awareness in such countries where English is not commonly known. Other languages would also make the online store more easily accessible for more people.

In addition, some of the company's other six warehouses could also be integrated to the online platform. Having an already well-operating platform, adding one more warehouse should be probable. If aiming at the online store becoming the main sales channel, production planning has to be incorporated along with the whole organization. When the production order goes directly from the online store to production, it is in theory possible to operate all orders through the online platform.

To conclude, based on the study and the author's five-month experience in the company the following recommendations are suggested;

- Conducting a survey of customer perceptions about online operations.
- Defining specific customer groups and standardizing product portfolio online.
- Spreading awareness of the online store by marketing emails and campaigns.
- General training for all employees regarding the existence and use of online store.
- Detailed training for every employee that is involved in the new digital process.
- Offering customers additional value such as lower prices in order to ease the transition from the traditional buying process to the digital buying process.
- Translating the online store to other languages.
- Possibly merging other warehouses into the online platform.

5 SUMMARY

Digitalization's effect can be described simply by change. It has changed customer behavior, society and thereafter it forces businesses to change, too. Capabilities digitalization possesses are real-time information sharing, faster processing, more flexible user experiences and the increased capacity of data. Digitalization enables companies to develop their services, operations, products and eventually business models. On the contrary, digitalization has put pressure on every company to compete, serve and to perform better using eCommerce.

Digitalization improves companies' cost-efficiency through automation. Digital means being incorporated into the traditional customer service process, enabling some processes to be automatized such as freight booking and sending confirmations. Time used in the traditional processes will eventually be cut by half and resources free up time for other responsibilities. With eCommerce, customer service moves towards self-service, although traditional service will still be available.

Although it is much hoped that automation and new platforms online would reduce customer contacts and eventually move the customers to self-service completely, customer service will always be needed. Offering a consistent, memorable and superior customer experience throughout the whole customer journey is a true challenge. The more touch-points and customer encounters there are, the more difficult it is to offer a consistent customer journey.

The purpose of digitalization in a company is to generate additional value for both the company and customers. For customers it means a well working integrity and benefit. Self-service can sometimes please the customer even more than traditional face-to-face communication. Nevertheless, customer engagement, availability and personalized service will be appreciated. In B2B, selling the concept of self-service to businesses, who are used to personal service, may be challenging.

The pressure to perform flawlessly in online customer service is high due to customer expectations that derive from success of the B2C online industry. Other challenges businesses face when moving into digital channels are exposure in the internet and the lack

of borders. The brutal price competition set by online visibility, stresses especially bigger companies but may give smaller companies opportunities to rise and join the competition. The internet has increased competition by lowering the barriers to conduct business internationally; no country borders exist on the internet.

The year 2017 brings again different challenges and trends into the online market. As probably already anticipated, mobile commerce (mCommerce) will keep growing and is expected to amount to as much as 70 percent of eCommerce sales in total. Same-day delivery is more expected as the number of online purchases is to increase. Also, pricing algorithms will become more common. At the moment, already 40 percent of B2B companies are using pricing algorithms. Algorithms help companies to battle the high competition online business field by automatically reacting to competitors' stock situations by increasing prices, for example. (Monkcom 2016.)

Digitalization and challenges that come along with it set the need for expertise. More training is definitely needed regarding eCommerce as a whole but not only in case company. It is needed throughout the whole B2B industry. Digitalization is already strongly present in every customer encounter and is hardly going to disappear.

Choosing the right tools and channels for one's company to help in the battle on the online market needs to be considered carefully. Not all means and all channels suit every company. Traditional models and operations are not necessary to be totally exterminated. In many cases the best results are achieved by combining the traditional and the digital. The reason for operating through more than one channel lays exactly in the customer centric service idea – offering consistent and superior service and filling the expectations of each. Which channels and operations are necessary should be considered case wise.

REFERENCES

- Ala-Mutka, J. 2016. Sijainti, sijainti ja sijainti –fyysinen ja digitaalinen.
<http://digitalistnetwork.com/sijainti-sijainti-sijainti-fyysinen-digitaalinen/> 7.11.2016
- Brown, M. 2015. B2B eCommerce. The Trillion Dollar Industry. PFS Web.
<http://www.pfsweb.com/PDF/whitepapers/PFSweb-B2B-eCommerce-Whitepaper.pdf> 11.10.2016
- Case Company. Customer service and sales assistant. Interview. 14.11.2016
- Case Company. Customer service manager. Interview. 5.9.2016
- Company X. Sales Manager. Interview. 3.11.2016
- Cohn, C. 2015. Differences in selling B2B Vs. B2C. Forbes.
<http://www.forbes.com/sites/chuckcohn/2015/06/16/differences-in-selling-b2b-vs-b2c/2/#3af90f869bba> 9.9.2016
- eComGrowth. 2016. Sosiaalinen kaupankäynti läpimurron kynnyksellä.
<http://ecomgrowth.fi/sosiaalinen-kaupankaynti-lapimurron-kynnyksella/> 11.11.2016
- Ecommerce News. Last updated in September 2016. eCommerce in Europe.
<http://ecommercenews.eu/e-commerce-per-country/e-commerce-in-europe/> 27.9.2016
- Ecommerce News. 2016. E-commerce in Europe to Reach 509.9 billion in 2016.
<https://ecommercenews.eu/e-commerce-europe-reach-e509-9-billion-2016/> 14.11.2016
- EMarketer. 2014. Global B2C Ecommerce Sales to Hit \$1.5 Trillion This Year Driven by Growth in Emerging Markets.
<https://www.emarketer.com/Article/Global-B2C-Ecommerce-Sales-Hit-15-Trillion-This-Year-Driven-by-Growth-Emerging-Markets/1010575> 11.11.2016
- EMarketer. 2016. Worldwide Retail Ecommerce Sales Will Reach 1.915 Trillion This Year.
<https://www.emarketer.com/Article/Worldwide-Retail-Ecommerce-Sales-Will-Reach-1915-Trillion-This-Year/1014369> 18.11.2016
- Elinkeinoelämän tutkimuslaitos (ETLA). 2015. Suomalainen teollinen internet – haasteesta mahdollisuudeksi. Elinkeinoelämän tutkimuslaitos (ETLA)
<https://www.etla.fi/wp-content/uploads/ETLA-Raportit-Reports-42.pdf> 12.9.2016
- European Commission. 2015. A Digital Single Market for Europe: Commission sets out 16 initiatives to make it happen. Press Release. European Commission.
http://europa.eu/rapid/press-release_IP-15-4919_en.htm 26.9.2016
- Eurostat. 2015. E-commerce statistics. E-sales and e-purchases, 2014 (% enterprises).
http://ec.europa.eu/eurostat/statistics-explained/index.php/E-commerce_statistics 12.11.2016
- Forrester. 2015. US B2B eCommerce Sales To Top \$1 Trillion By 2020. Forrester.
<https://www.forrester.com/US+B2B+eCommerce+Sales+To+Top+1+Trillion+By+2020/-/E-PRE7724> 6.9.2016
- Gartner Inc. 2016. Digitalization. IT-Glossary.
<http://www.gartner.com/it-glossary/digitalization/> 22.9.2016
- Heiskanen, S. 2016. Digitaalinen kauppa 2020: ”How to kick ass”. eCom Growth.
<http://ecomgrowth.fi/digitaalinen-kauppa-2020-how-to-kick-ass/> 31.10.2016
- Ilmarinen, V.; Koskela, K. 2015. Digitalisaatio. Yritysjohdon käsikirja. Helsinki: Talentum Media Oy.
- Insurance Governance Leadership Network. 2015. Risk and opportunity in an increasingly digital world.
[http://www.ey.com/Publication/vwLUAssets/EY_-_Risk_and_opportunity_in_a_digital_world/\\$FILE/ey-risk-and-opportunity-in-an-increasingly-digital-world.pdf](http://www.ey.com/Publication/vwLUAssets/EY_-_Risk_and_opportunity_in_a_digital_world/$FILE/ey-risk-and-opportunity-in-an-increasingly-digital-world.pdf) 27.9.2016

- Kinnunen, A. 2015. Miten sinä määrittelet digitalisaation? Tivi.
<http://www.tivi.fi/Kumppanit/Sofigate/miten-sina-maarittelet-digitalisaation-6062335> 6.9.2016
- Keizer, I. 2016. The Top 8 eCommerce Challenges of 2016. LinkedIn.
<https://www.linkedin.com/pulse/top-8-ecommerce-challenges-2016-ing-keizer>
 14.11.2016
- Koch, R. 2016. The 80/20 Principle.
<http://richardkoch.net/2012/11/the-8020-principle-2/> 5.10.2016
- Lahtinen, T. 2013. Verkkokaupan käsikirja. Helsinki: Suomen Yrityskirjat Oy.
- Miva Inc. 2011. The History of Ecommerce: How Did It All Begin?
<http://www.miva.com/blog/the-history-of-ecommerce-how-did-it-all-begin/> 11.10.2016
- Monkcom, K. 2016. Top 5-eCommerce Trends For 2017.
<https://www.mercuriusit.com/top-5-ecommerce-trends-for-2017/> 18.11.2016
- Nieminen Anu. 2009. Improving an Order-Delivery Process with Process Management and Lean Methodology. Lahti University of Applied Sciences. Degree Programme in International Business. Bachelor's thesis.
https://www.theseus.fi/bitstream/handle/10024/6997/Nieminen_Anu.pdf?sequence=1 8.10.2016
- PwC. 2015-2016. B2B Growth in digital age.
<http://www.pwc.com/us/en/advisory/customer/b2b-growth.html> 26.9.2016
- Richter, F. 2013. Global E-Commerce Sales to Reach \$1.2 Trillion This Year. Statista.
<https://www.statista.com/chart/1223/global-e-commerce-sales-2013/> 9.11.2016
- Rissanen, O-P. 2015. Digitalisation. Valtiovarainministeriö.
http://vm.fi/digitalisaatio?p_p_id=56_INSTANCE_SSKDNE5ODInk&p_p_lifecycle=0&p_p_state=normal&p_p_mode=view&p_p_col_id=column-2&p_p_col_count=1&_56_INSTANCE_SSKDNE5ODInk_languageId=en_US
 6.9.2016
- Ruokonen, M. 2016. Biteistä bisnestä! Digitaalisen liiketoiminnan käsikirja. Jyväskylä: Docedo Oy.
- Singh, S. 2014. B2B eCommerce Market Worth \$6.7 Trillion by 2020: Alibaba & China the Front-Runners. Forbes.
<http://www.forbes.com/sites/sarwantsingh/2014/11/06/b2b-ecommerce-market-worth-6-7-trillion-by-2020/#3c26abbf2e7c> 3.10.2016
- Service Design Tools. Last updated 2009. Customer Journey Map.
<http://www.servicedesigntools.org/tools/8> 6.11.2016
- Statistics Finland. 2015. More mobile internet use, more personal devices.
http://www.stat.fi/til/sutivi/2015/sutivi_2015_2015-11-26_tie_001_en.html
 30.10.2016
- Statista. 2014a. B2C eCommerce Sales Worldwide.
<https://www.statista.com/statistics/261245/b2c-e-commerce-sales-worldwide/>
 14.11.2016
- Statista. 2014b. E-commerce.
<https://www.statista.com/markets/413/e-commerce/> 9.11.2016
- Statista. 2016. Global Internet Penetration Rate from 2009 to 2016, by Region.
<https://www.statista.com/statistics/265149/internet-penetration-rate-by-region/>
 14.11.2016
- Suny Levin Institute. 2016. Technology and Globalization. Suny Levin Institute.
<http://www.globalization101.org/uploads/File/Technology/tech.pdf> 9.9.2016
- TEKES. 2016. Tekes Funding for SMEs.
<http://www.tekes.fi/en/funding/SME/> 6.9.2016

Semi-structured interview outline in Finnish

1. Voisitko lyhyesti kuvailla OTD –prosessianne?
2. Miten verkkokaupan käyttöönotto vaikutti asiakaspalveluun, mihin vapautuneet resurssit käytettiin?
3. Millaisen vastaanoton verkkokauppa sai asiakkailta? Uskoisin, että vastentahtoisena ja jos näin oli niin mistä uskot sen johtuneen?
4. Miten asiakkaiden ohjaaminen verkkokauppaan onnistui?
5. Mikä sai lähtemään eCommercen maailmaan?
6. Mitkä ovat ehdottomat hyödyt verkkokaupasta? Entä negatiiviset puolet?
7. Mikä on käsityksesi/näkemyksesi B2B maailman digitalisaation tilanteesta ja kehityksestä tällä hetkellä?
8. Uskotko, että yrityksenne tulisi vielä kehittää eCommerce osaamista?

Semi-structure interview outline in English

1. Could you shortly describe your OTD –process?
2. How did online store affect customer service and where were freed resources allocated?
3. What was reaction to online store from customers? I believe it might have been resistant and if so, do you have an idea why?
4. How did directing customers to online store happen?
5. What made you enter the world of eCommerce?
6. What are the most significant benefits from WebShop? How about negative things or are there any?
7. What is your insight to digitalization´s situation and development in B2B market?
8. Do you think your company still needs to develop its eCommerce operations?